# Food Science and Technology

#09138

Grades 9-12

❖ This course will examine food and the food industry along the producer to table continuum. Topics that may be addressed include production, processing, preparation, preservation, and packaging principles. This course may integrate the application of basic food science principles, government regulations, emerging trends, sustainability, biotechnology, packaging and marketing, transportation and distribution, and career opportunities as related to the world of food science and technology. Lab experiences can demonstrate how food technology affects the consumer.

Credit:
½ or 1
Max credit = 1

| MIS03#09138 | 0.5 or 1.0 Credit | FOOD SCIENCE & TECHNOLOGY | |
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| **Food Science, Dietetics, and Nutrition** | | | ✓ |
| **Content Standards** | **Competencies** | | |
| 9.1 Analyze career paths within food science, food technology, dietetics, and nutrition industries. | 9.1.1 Explain the roles and functions of individuals engaged in food science, food technology, dietetics, and nutrition careers. | | |
| | 9.1.2 Analyze opportunities for employment and entrepreneurial endeavors. | | |
| | 9.1.3 Summarize education and training requirements and opportunities for career paths in food science, food technology, dietetics, and nutrition. | | |
| | 9.1.4 Analyze the impact of food science, dietetics, and nutrition occupations on local, state, national, and global economies. | | |
| | 9.1.6 Analyze the role of professional organizations in food science, food technology, dietetics, and nutrition careers. | | |
| 9.2 Apply risk management procedures to food safety, food testing, and sanitation. | 9.2.1 Analyze factors that contribute to food borne illness. | | |
| | 9.2.4 Use the Hazard Analysis Critical Control Point (HACCP) during all food handling processes to minimize the risks of food borne illness. | | |
| | 9.2.5 Demonstrate practices and procedures that assure personal and workplace health and hygiene. | | |
| | 9.2.6 Demonstrate standard procedures for receiving and storage of raw and prepared foods. | | |
| | 9.2.7 Classify current types of cleaning materials and sanitizers and their proper use. | | |
| 9.3 Evaluate nutrition principles, food plans, preparation techniques and specialized dietary plans. | 9.3.1 Analyze nutrient requirements across the life span addressing the diversity of people, culture, and religions. | | |
| | 9.3.2 Analyze nutritional data. | | |
| | 9.3.3 Apply principles of food production to maximize nutrient retention in prepared foods. | | |
| | 9.3.4 Assess the influence of socioeconomic and psychological factors on food and nutrition and behavior. | | |
| | 9.3.5 Analyze recipe/formula proportions and modifications for food production. | | |
| | 9.3.6 Critique the selection of foods to promote a healthy lifestyle. | | |
| | 9.3.7 Categorize foods into exchange groups and plan menus, applying the exchange system to meet various nutrient needs. | | |

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| 9.5 Demonstrate use of current technology in food product development and marketing. | 9.5.1 Analyze various factors that affect food preferences in the marketing of food. | |
| | 9.5.2 Analyze data in statistical analysis in making development and marketing decisions. | |
| | 9.5.3 Prepare food for presentation and assessment. | |
| | 9.5.4 Maintain test kitchen/laboratory and related equipment and supplies. | |
| | 9.5.5 Implement procedures that affect quality product performance. | |
| | 9.5.6 Conduct sensory evaluations of food products. | |
| | 9.5.7 Conduct testing for safety of food products, utilizing available technology. | |
| 9.6 Demonstrate food science, dietetics, and nutrition management principles and practices. | 9.6.2 Implement food preparation, production, and testing systems. | |
| | 9.6.3 Apply standards for food quality. | |
| | 9.6.6 Analyze new products. | |
| | 9.6.7 Implement procedures that provide cost effective products. | |

## Overview

*The Committee felt at this time that an Overview is unnecessary for Food Science and Technology,*

*as it is a stand-alone course and does not reach into the more general classes taught in lower levels.*